



CORPORATE - POCATELLO OFFICE

September 8, 2015

Mary Kauffman USDA Forest Service – Caribou National Forest 1405 Hollipark Drive Idaho Falls, Idaho 83401

Subject:

Smoky Canyon Mine Remedial Investigation/Feasibility Study (RI/FS)

Final Pilot Study Work Plan and Sampling and Analysis Plan

Biological Selenium Removal Treatment Technology Fluidized Bed Bioreactor

Addendum 03 - Pilot Test Plan: Bioreactor Post Treatment with Oxidant

Dear Mary:

Attached to this transmittal letter, in electronic format, is Addendum 03 of the Final Pilot Study Work Plan and Sampling and Analysis Plan (Work Plan/SAP), Biological Selenium Removal Treatment Technology Fluidized Bed Bioreactor. This submittal provides the Pilot Test Plan: Bioreactor Post Treatment with Oxidant by Frontier Water Systems (August 26, 2015) which is designed to address the occurrence of the filamentous sulfide-oxidizing Thiothrix Type 1 bacteria. The aeration step in the fluidized bed bioreactor (FBR) process was cultivating these bacteria, resulting in clogging of the filter media and shutdown of the bioreactor in early August 2015.

The *Pilot Test Plan* specifies the proposed remedy, plant modifications, and test plan for this process. To address the bacteria issue, sulfide will be removed from the stream prior to aeration by adding hydrogen peroxide. Other adjustments to the stream also will be made to ensure pH control. Field testing and field measurements will performed, along with the required monitoring as specified in the *Final Pilot Study Work Plan/SAP* (September 2014) and in *Addendum 01* of the *Work Plan/SAP* (July 2015).

With your approval, Simplot plans to operate the treatability study pilot using the sulfide-oxidizing bacteria control process described herein.

Please contact me if you have any questions.

Sincerely,

Monty Johnson

**Environmental Engineering Manager** 

Enclosures

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Cc: Submitted to the following in electronic (pdf) format via email, with the exception of paper copy to USFS, Soda Springs only. Paper copies available upon request.

Mary Kauffman - USDA Forest Service, 410 East Hooper, Soda Springs, ID 83276 (paper copy) James Alexander - USDA Office of the General Counsel Wayne Crowther - IDEQ, 444 Hospital Way, Suite 300, Pocatello, ID 83201 Brady Johnson - IDEQ, 1410 North Hilton, Boise, ID 83706 Colleen O'Hara-Epperly- BLM, 4350 South Cliffs Dr., Pocatello, ID 83204 Sandi Fisher- USFWS, 4425 Burley Dr., Suite A, Chubbuck, ID 83202 Matt Wilkening - USEPA, 950 West Bannock St., Suite 900, Boise, ID 83702 Ted Yackulic - USEPA, 1200 Sixth Avenue, Seattle, WA 98101 Kelly Wright - Shoshone-Bannock Tribes, P.O. Box 306, Fort Hall, ID 83203 Susan Hanson -(b) (6) Gary Billman - IDL, 3563 East Ririe Highway, Idaho Falls, ID 83401 Rick McCormick- CH2M Hill, 322 East Front St., Suite 200, Boise, ID 83702 Jeff Osterman - CH2M Hill, 322 East Front St., Suite 200, Boise, ID 83702 Doug Scott - CH2M Hill, 59 Lilac Court, Pagosa Springs, CP 81147 Alan Prouty - J.R. Simplot Company, P.O. Box 27, Boise, ID 83707 Burl Ackerman - J.R. Simplot Company, P.O. Box 27, Boise, ID 83707 Chad Gentry - J.R. Simplot Company, P.O. Box 1270, Afton, WY 83110 Fred Charles - Formation Environmental, 2500 55th St., Boulder, CO 80301